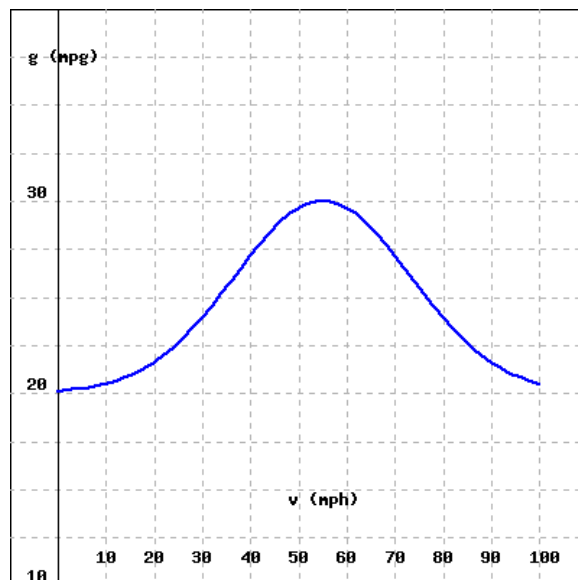


Exercise 1 The graph below shows the fuel consumption (in miles per gallon, mpg) of a car driving at various speeds (in miles per hour, mph).



- (a) How much gas is used on a 400 mile trip at 80 mph?

amount of gas = $\boxed{400/24}$ gallons

Hint: When the car is going 80 mpr, it appears from the graph that the fuel consumption is approximately 24 mpg.

- (b) How much gas is saved by traveling 60 mph instead of 70 mph on a 600 mile trip?

saved gas = $\boxed{600/30 - 600/27}$ gallons

- (c) According to this graph, what is the most fuel efficient speed to travel?

most fuel efficient speed = $\boxed{55}$ mph